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(71)Applicant : FUJITSU LTD

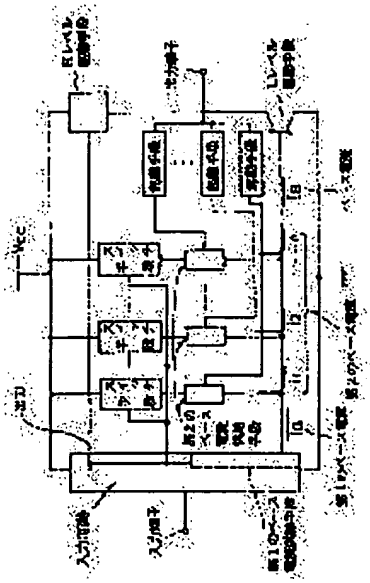
(72)Inventor : HIROCHI KATSUJI

(54) OUTPUT CIRCUIT

(57)Abstract:

PURPOSE: To set the fall change of an output signal to be gradual and to evade the ringing of the waveform of an output fall by increasing a base current supplied to an L level driving means stepwise.

CONSTITUTION: When the output of an input circuit changes from a first potential state to a second potential state, a first base current ia is firstly generated, the L level driving means is operated by the first base current ia and the potential of an output terminal is changed from an H level to an L level. When the potential of the output terminal reaches a prescribed potential, second base currents i1-in are generated and they are added to the first base current ia. Since the base current IB is added with the lapse of time so as to increase them stepwise, the fall change of the output signal comes to gradual and the occurrence of the ringing of the output fall waveform can be evaded.



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PATENT FAMILY SEARCH FOR JP 02-237220

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SOURCES:

Selected file: PLUSPAT
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UP (basic), UE(equiv), UA (poly), UB (chem) : updates through 2006-12
Manual Code Revision 2006 - final lists available on Thomson Scientific
Website. Revised codes will be implemented in the first update of 2006.
Please review lists to update manual codes in SDIs and stored searches.
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Selected file: INPD
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Individual publication stage records for each Patenting Authority
Coverage: 75 patent offices ; start dates vary from 1968 forward
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For searching IPC v8 (pd>=2006), use the qualifiers: /ICAA /ICCA

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Std Biblio thru PGP PD=2001-11(2002-11/uam);Grant PD=2005-06(2006-02/UM)
Chem Indxg thru PGP PD=2004-06(2006-02/uab);Grant PD=2005-10(2006-02/UB)
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From 06/04 forward questionable source data received from USPTO shows
PCT filing date, not date of national stage as app date for US patents
that entered via PCT route. IFI is investigating.

PATOLIS-e

PATENT FAMILY

#	Patent No.	Kind	Date	Applic.No.	Date
1)	JP02237220	A	19900919	1989JP-0056942	19890309

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Patent Assignee :
(A) FUJITSU LTD

Patent Assignee :
(A) FUJITSU LTD

Inventor(s) :
(A) HIROCHI KATSUJI

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Applicant: FUJITSU LTD
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Abstract: PURPOSE: To set the fall change of an output signal to be gradua
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base current supplied to an L level driving means stepwise. CONSTITUTION: W
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the occurrence of the ringing of the output fall waveform can be evaded.COP
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(A7D2 1992/ 9/28,NOTIFICATION OF LUMP CHANGE IN DOMICILE (REPRESENTATIVE),
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(A7D2 1995/ 4/ 5,NOTIFICATION OF LUMP CHANGE IN DOMICILE (REPRESENTATIVE),
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(A7D2 1995/ 5/ 9,NOTIFICATION OF LUMP CHANGE IN DOMICILE (REPRESENTATIVE),
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(A7D2 1996/ 3/26,NOTIFICATION OF LUMP CHANGE IN DOMICILE (REPRESENTATIVE),
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Defendand: -
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